SMU. Lyle School of Engineering

MASTER OF SCIENCE
MAJOR IN DATACENTER SYSTEMS ENGINEERING

SMU ID #: _____   Name: _____

Home Address: _____   Home Phone: _____

SMU email: _____   Business Phone: _____

ARTICULATION COURSE(S)	Course Title	Instructor	Hrs.	Semester	Grade
_____	_____	_____	___	_____	_____
_____	_____	_____	___	_____	_____

CORE COURSES – 15 hours

CS 7346 _____	Cloud Computing & Virtualization Technologies _	_____	3 __	_____	_____
CS 7349 _____	Data and Network Security_____	_____	3 __	_____	_____
ECE 7301 _____	Power Mgmt for Industrial & Mission Critical Fac	_____	3 __	_____	_____
OREM 7357 ____	Analytics for Decision Support _____	_____	3 __	_____	_____
CEE/ME 7380 _	Mgmt of Industrial & Mission Critical Facilities __	_____	3 __	_____	_____

GROUP 1 ELECTIVES (see selections on back) 9 hours

Specialization 1 – Facilities Infrastructure Management
Specialization 2 – Data Engineering & Analytics
Specialization 3 – Networks, Virtualization & Security
Specialization 4 – Business

_____	_____	_____	3	_____	_____
_____	_____	_____	3	_____	_____
_____	_____	_____	3	_____	_____

GROUP 2 ELECTIVES - 6 hours – With approval of academic advisor, graduate level courses from the Lyle School of Engineering, Cox School of Business, Dedman College Departments of Physics, Chemistry, Mathematics or Statistics

_____	_____	_____	3	_____	_____
_____	_____	_____	3	_____	_____

TOTAL HOURS (Minimum 30)   ___

APPROVED _____
                    Advisor / Date   Department Head / Date

_____
                    Director of Grad Studies/ Date

All Lyle graduate degrees must be completed within a 7 year window. Most courses are offered during alternating semesters to allow some flexibility. Sample tracks for completion are shown below:

Fall - 2 courses
Spring - 2 courses
Fall - 2 courses
Spring - 2 courses
Fall - 2 courses
Graduation in Fall term (2.5 years)

Fall - 1 course/Spring - 1 course - year 1 - 2 courses
Fall - 1 course/Spring - 1 course - year 2 - 2 courses
Fall - 1 course/Spring - 1 course - year 3 - 2 courses
Fall - 1 course/Spring - 1 course - year 4 - 2 courses
Fall - 1 course/Spring - 1 course - year 5 - 2 courses
Graduation in Spring term of year 5

Specialization in Facilities Infrastructure Management
CEE 7325 Disaster Management
CEE 7370 Facilities Planning
CEE 7366 Introduction to Facilities Engineering Systems
CEE 7369 Electrical Mechanical and Piping Systems for Buildings
CEE 7384 Energy Management for Buildings
EETS 7307 Telecommunications for Data Systems Engineering
OREM7347 Critical Infrastructure Protection/Security Systems Engineering
OREM 8363 Engineering Finance, ME 7330 Heat Transfer
ME 7335 Convection Cooling of Electronics
ME 7336 Intermediate Fluid Dynamics
ME 7344 Conductive Cooling of Electronics
ME/CEE 7383 Heating, Ventilating and Air Conditioning
ME 8385 Conduction Heat Transfer
ME 8387 Radiation Heat Transfer
CEE/ME 7381 Site Selection for Industrial & Mission Critical Facilities

Specialization in Data Engineering and Analytics
CS 7330 File Organization and Database Management
CS 7340 Service Oriented Computing
CS 7347 XML and the Enterprise
CS 8316 User Interface Design
CS 8321 Machine Learning and Neural Networks
OREM/CS 8331 Data Mining
OREM/CS 8337Information Retrieval
OREM 7352 Information System Architecture
OREM 7353 Information Systems Design Strategy

Specialization in Networks, Virtualization, Security
OREM7382 Information Technology Security and Risk Management
OREM 8364 Engineering Management
OREM 8356 Information Engineering: A Global Perspective
CS 7339 Computer System Security
CS 7344 Computer Networks and Distributed Systems
CS 7359 Software Security
CS 8343 Advanced Operating Systems (Virtualization)
CS 8349 Advanced Network and System Security
CS 8352/EE 8372 Cryptography and Data Security
EETS 7304 Network Protocols
EETS 8311 Intelligent Networks

Specialization in Business
OREM 8362 Engineering Accounting
FINA 6201 Managerial Finance
ITOM 6202 Management Decision Analysis
RE 6211 Real Estate Investment